Amendments to the Claims

Claim 1 (previously presented): A method of producing a stereoregular head, tail-poly(alkylene D-glucaramide), the method comprising the steps of:

a) esterifying an amidoamino acid in an alcohol under conditions that limit alcoholysis of the amide bond;

b) polymerizing the esterified amidoamino acid in a protic solvent in the presence of a tertiary amine to form a stereoregularly improved prepolymer; and

c) polymerizing the stereoregularly improved prepolymer in a solvent that is not the same solvent of step b) to form the stereoregular head, tail-poly(alkylene D-glucaramide.

Claim 2 (original): The method of claim 1, wherein said alcohol is selected from the group consisting of methanol, ethanol, propanol and isopropanol containing a strong acid.

Claim 3 (original): The method of claim 1, wherein said method further comprises the step of, after a), isolating said esterified amidoamino acid by solvent removal under mild conditions.

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Claim 4 (original): The method of claim 1, wherein said amidoamino acid is selected from the group consisting of 6-[N-(2'-aminoethyl)]-D-glucaramide and salts thereof, 6-[N-(4'-aminobutyl)]-D-glucaramide and salts thereof, 6-[N-(6'-aminohexyl)]-D-glucaramide, and salts thereof, and 6-[N-(12'-aminododecyl)]-D-glucaramide, and salts thereof.

Claim 5 (original): The method of claim 1, wherein said protic solvent is selected from the group consisting of methanol, ethanol, propanol, and isopropanol.

Claim 6 (currently amended): The method of claim 1, wherein said solvent is ~~selected from the group consisting of~~ a mixture of a protic polar solvent and, an aprotic polar solvent ~~and mixtures thereof~~.

Claim 7 (original): The method of claim 1, wherein said stereoregular prepolymer is polymerized in a solvent in the presence of a tertiary amine.

Claim 8 (original): A product produced by steps a and b of the method of claim 1, wherein said amidoamino acid is a sodium salt of 6-[N-(2'-aminoethyl)]-D-glucaramide.

Claim 9 (original): A product produced by steps a and b of the method of claim 1, wherein said amidoamino acid is a sodium salt of 6-[N-(4'-aminobutyl)]-D-glucaramide.

Claim 10 (original): A product produced by steps a and b of the method of claim 1, wherein said amidoamino acid is a sodium salt of 6-[N-(6'-aminohexyl)]-D-glucaramide.

Claim 11 (original): A product produced by steps a and b of the method of claim 1, wherein said amidoamino acid is a sodium salt of 6-[N-(12'-aminododecyl)]-D-glucaramide.

Claim 12 (original): A product produced by the method of claim 1, wherein said amidoamino acid is 6-[N-(2'-aminoethyl)]-D-glucaramide and said stereoregular head,tail-poly(alkylene D-glucaramide) has the formula $C_8H_{14}O_6N_2$.

Claim 13 (original): The product of claim 12, wherein said stereoregular head,tail-poly(alkylene D-glucaramide) has a degree of polymerization of about 8.0, an average molecular weight of about 1,874 and an estimated molecular weight of about 3,841.

Claim 14 (original): A poly(ethylene D-glucaramide) having a number average molecular weight of about 1,874 and an estimated weight average molecular weight of about 3,841.

Claim 15 (original): A product produced by the method of claim 1, wherein said amidoamino acid is 6-[N-(4'-aminobutyl)]-D-glucaramide and said stereoregular head,tail-poly(alkylene D-glucaramide) has the formula $C_{10}H_{18}O_6N_2$.

Claim 16 (previously presented): A stereoregular head, tail-poly(alkylene D-glucaramide) produced by a method comprising the steps of:

a) esterifying an 6-[N-(4'-aminobutyl)]-D-glucaramide in an alcohol under conditions that limit alcoholysis of the amide bond;

b) polymerizing the esterified 6-[N-(4'-aminobutyl)]-D-glucaramide in a protic solvent in the presence of a tertiary amine to form a stereoregularly improved prepolymer; and

c) polymerizing the stereoregularly improved prepolymer in a solvent to form the stereoregular head, tail-poly(alkylene D-glucaramide);

wherein said stereoregular head,tail-poly(alkylene D-glucaramide) has the formula $C_{10}H_{18}O_6N_2$, a degree of polymerization of about 30.0, a number average molecular weight of about 7,868 and an estimated weight average molecular weight of about 16,129.

Claim 17 (previously presented): A poly(ethylene D-glucaramide) having the formula $C_{10}H_{18}O_6N_2$, a number average molecular weight of about 7,868 and an estimated weight average molecular weight of about 16,129.

Claim 18 (original): A product produced by the method of claim 1, wherein said amidoamino acid is 6-[N-(6'-aminohexyl)]-D-glucaramide and said stereoregular head, tail-poly(alkylene D-glucaramide) has the formula $C_{12}H_{22}O_6N_2$.

Claim 19 (previously presented): A stereoregular head, tail-poly(alkylene D-glucaramide) produced by a method comprising the steps of:

a) esterifying an 6-[N-(6'-aminohexyl)]-D-glucaramide in an alcohol under conditions that limit alcoholysis of the amide bond;

b) polymerizing the esterified 6-[N-(6'-aminohexyl)]-D-glucaramide in a protic solvent in the presence of a tertiary amine to form a stereoregularly improved prepolymer; and

c) polymerizing the stereoregularly improved prepolymer in a solvent to form the stereoregular head, tail-poly(alkylene D-glucaramide);

wherein said stereoregular head,tail-poly(alkylene D-glucaramide) has the formula $C_{12}H_{22}O_6N_2$, a degree of polymerization of about 42.7, a number average molecular weight of about 12,400 and an estimated weight average molecular weight of about 25,410.

Claim 20 (previously presented): A poly(ethylene D-glucaramide) having the formula $C_{12}H_{22}O_6N_2$, a number average molecular weight of about 12,400 and an estimated weight average molecular weight of about 25,410.

Claim 21 (original): A product produced by the method of claim 1, wherin said amidoamino acid is 6-[N-(12'-aminododecyl)]-D-glucaramide and said stereoregular head, tail-poly(alkylene D-glucaramide) has the formula $C_{18}H_{34}O_6N_2$.

Claim 22 (previously presented): A stereoregular head, tail-poly(alkylene D-glucaramide) produced by a method comprising the steps of:

a) esterifying an 6-[N-(12'-aminododecyl)]-D-glucaramide in an alcohol under conditions that limit alcoholysis of the amide bond;

b) polymerizing the esterified 6-[N-(12'-aminododecyl)]-D-glucaramide in a protic solvent in the presence of a tertiary amine to form a stereoregularly improved prepolymer; and

c) polymerizing the stereoregularly improved prepolymer in a solvent to form the stereoregular head, tail-poly(alkylene D-glucaramide);

wherein said stereoregular head,tail-poly(alkylene D-glucaramide) has the formula $C_{18}H_{34}O_6N_2$, a degree of polymerization of about 17.6, a number average molecular weight of about 6,590 and an estimated weight average molecular weight of about 16,477.

Claim 23 (previously presented): A poly(ethylene D-glucaramide) having the formula $C_{18}H_{34}O_6N_2$, a number average molecular weight of about 6,590 and an estimated weight average molecular weight of about 16,477.